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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,906	07/20/2005	Jozef Laurentius Wilhelmus Kessels	NL 030105	1816

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
CERULLO, JEREMY S	

ART UNIT	PAPER NUMBER
2111	

MAIL DATE	DELIVERY MODE
09/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/542,906	KESSELS ET AL.	
	Examiner	Art Unit	
	Jeremy S. Cerullo	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-17 are pending in the following action.

Response to Arguments

2. Applicant's arguments filed 13 June 2008 have been fully considered but they are not persuasive.

Regarding the arguments dealing with the rejections under 35 USC 112, the examiner maintains that it is not clear in the claims how the components described as such are "configured to" perform their respective functions, and as such, the claims are considered indefinite. Applicant appears to intend for the claim to encompass any possible circuitry, which would raise the question of proper enablement. Further, taking Applicant's arguments at face value, it is clear that Applicant argues unclaimed details which are disclosed to be read into the claims improperly from the specification.

Regarding the arguments dealing with the Yetter reference, the examiner notes that in the Abstract of the reference, Yetter teaches that the system is designed to tolerate clocks with differences due to manufacturing inequalities. Therefore, since the signals come from two distinct, unequal, clocks there is a variation in the frequency, making them different.

The previous rejections are therefore maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1-3, 6, 8-10, 13-14, 16 contain the phrase "configured to". It is not clear in the claims how the components described as such are "configured to" perform their respective functions, and as such, the claims are considered indefinite.

6. Claims 2-16 also inherit the indefiniteness from Claim 1 and any other claims listed above from which they depend.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-4, 8-9, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,392,423 ("Yetter") in view of U.S. Patent No. 5,964,866 ("Durham" et al.).

10. As for Claim 1, Yetter teaches a device (Figure 8) for transferring data between clocked devices (Figure 8, Items 802 and 804) having different frequencies comprising a mousetrap buffer (Figure 8, Item 814) for exchanging data with one of the clocked devices using an output for coordinating the data exchange. Yetter does not teach the use of a synchronization unit. However, Durham teaches a pipeline synchronization device for exchanging data having a signaling output (Figure 2, Item 74) for coordinating the data exchange with a clocked device, and a synchronizer (Figure 2, Item 76) adapted to synchronize the change in the signaling output with the clock of the external device (Figure 6, SYNC_DATA_ENB). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the synchronization unit of Durham in the system of Yetter in order to better regulate the transfer of data by

coordinating the data exchange with a common clock (Durham: Column 1, Line 38 – Column 2, Line 2).

11. As for Claims 2-3 and 8, Durham further teaches that the signaling output is synchronized after a delay based on a transition of a clock signal (Figure 6).

12. As for Claim 4, Durham further teaches that the synchronizer comprises a latch (Figure 6, Items 88 and 90) having a synchronizing input (Figure 6, REQUEST), a synchronizing output (Figure 6, SYNC_DATA_ENB), and control inputs for enabling the output (Figure 6, CLK, PH1, and PH2).

13. As for Claim 9, Yetter further teaches the use of multiple mousetrap buffers with alternating clocks (Figure 8).

14. As for Claim 14, Durham further teaches that the latch is adapted to transfer data to an external device and that latch has a way to signal a request for sending the data (Column 4, Line 63 – Column 5, Line 15).

15. Claim 17 is drawn to a method of using the device of Claim 1 and as such is rejected on the same grounds.

16. Claims 5, 10-13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yetter and Durham as applied to claims 1-4, 8-9, 14, and 17 above, and further in view of MOUSETRAP: Ultra-High-Speed Transition-Signaling Asynchronous Pipelines ("Singh" et al.).

17. As for Claim 5, Yetter and Durham teach all of the limitations inherited from Claim 4, but do not teach that the mousetrap logic comprises an XNOR gate. However, Singh teaches that the mousetrap logic comprises an XNOR gate with the inputs attached to the input and the output of a latch and that the logic comprises a delay circuit between the data latches (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used mousetrap logic of Singh given the lack of specific teaching in Yetter and Durham.

18. As for Claim 10-12, Yetter and Durham teach all of the limitations inherited from Claim 8, but do not teach that the mousetrap logic comprises an XNOR gate. However, Singh teaches that the mousetrap logic comprises an XNOR gate with the inputs attached to the input and the output of a latch and that the logic comprises a delay circuit between the data latches (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used mousetrap logic of Singh given the lack of specific teaching in Yetter and Durham.

19. As for Claim 13, Yetter and Durham teach all of the limitations inherited from Claim 4, but do not teach that the latch utilizes an acknowledge signal. However, Singh teaches that the latch (mousetrap) receives data and also sends an acknowledge signal back to the sender (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used mousetrap logic of Singh given the lack of specific teaching in Yetter and Durham.

20. As for Claim 15, Yetter and Durham teach all of the limitations inherited from Claim 4, but do not teach that the mousetrap logic comprises an XNOR gate. However,

Singh teaches that the mousetrap logic comprises an XNOR gate with the inputs attached to the input (request) and the output (acknowledge) of a latch and that the logic comprises a delay circuit between the data latches based on a clock signal (Figure 2).

21. As for Claim 16, Durham further teaches that the signaling output is synchronized after a delay based on a transition of a clock signal (Figure 6).

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy S. Cerullo whose telephone number is

(571)272-3634. The examiner can normally be reached on Monday - Thursday, 8:00-4:00; Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. C./
Examiner, Art Unit 2111

/MARK RINEHART/
Supervisory Patent Examiner, Art Unit 2111